



## PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2004212656 A

(43) Date of publication of application: 29.07.2004

(51) Int. Cl. G02B 26/08  
B81B 3/00, B81B 7/04

(21) Application number: 2002382324  
(22) Date of filing: 27.12.2002

(71) Applicant: FUJI PHOTO FILM CO LTD  
(72) Inventor: KIMURA KOICHI

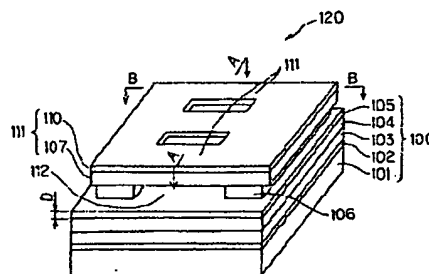
**(54) OPTICAL MODULATOR ARRAY AND PLANE DISPLAY****(57) Abstract:**

**PROBLEM TO BE SOLVED:** To provide an optical modulator array in which a residual stress and strain at the connected part of a support and a movable part are relaxed and the flatness of the movable part is excellent, and to provide a plane display including the optical modulator array.

**SOLUTION:** The optical modulator array and the plane display provided with the optical modulator array are composed of optical modulators 120 which are arranged in a two-dimensional matrix. Each of the optical modulator is provided with: a substrate 100 having a transparent substrate 101 and a transparent electrode 102; a pair of supports 106 which are a predetermined space away from each other and erected on the substrate 100 and formed of a material having an elasticity lower than that of a movable part 111; and the movable

part 111 which is composed of a flexible thin film having a transparent electrode 110 on the opposite face from the substrate 100 and mounted on the supports 106. The optical modulator causes light emitted from a light source to pass through the substrate 100 and the movable part 111 and emits the light outward by moving the movable part 111 toward the substrate 100 with an electrostatic force generated by applying a voltage between both transparent electrodes.

COPYRIGHT: (C)2004,JPO&amp;NCIP

**BEST AVAILABLE COPY**